

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.-33. (Canceled)

34. (New) A chimeric polypeptide comprising the following components:

- (a) a streptokinase component capable of plasminogen activation; and
- (b) a fibrin-binding component, wherein said fibrin-binding component is fibrin-binding domains 4 and 5 of human fibronectin, or is fibrin-binding domains 1 and 2 of human fibronectin;

wherein said streptokinase component and said fibrin-binding component are fused via a peptide bond and are linked through a region that is sufficiently flexible so as to prevent activation of plasminogen by said streptokinase component, and so as to allow plasmin-dependent activation of said streptokinase component.

35. (New) The chimeric polypeptide of claim 34, wherein said fibrin-binding component is fused to the N-terminus of said streptokinase component.

36. (New) The chimeric polypeptide of claim 35, wherein said streptokinase component is a *Streptococcus equismilis* H46A streptokinase component.

37. (New) The chimeric polypeptide of claim 36, wherein the flexible region comprises the N-terminal region of SEQ ID NO: 2.

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38. (New) The chimeric polypeptide of claim 37, wherein said chimeric polypeptide further comprises a transglutaminase crosslinking site.

39. (New) The chimeric polypeptide of claim 38, wherein said streptokinase component comprises amino acids 1-383 of SEQ ID NO: 2.

40. (New) The chimeric polypeptide of claim 39, wherein said chimeric polypeptide is encoded by the polynucleotide of SEQ ID NO: 11.

41. (New) The chimeric polypeptide of claim 34, wherein said fibrin-binding component is fused to the C-terminus of said streptokinase component.

42. (New) The chimeric polypeptide of claim 41, wherein said streptokinase component is a *Streptococcus equismilis* H46A streptokinase component.

43. (New) The chimeric polypeptide of claim 42, wherein the flexible region is a polypeptide linker comprising Gly-Gly-Gly.

44. (New) The chimeric polypeptide of claim 43, wherein the flexible region further comprises a transglutaminase crosslinking site.

45. (New) The chimeric polypeptide of claim 44, wherein said streptokinase component comprises amino acids 1-383 of SEQ ID NO: 2.

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46. (New) The chimeric polypeptide of claim 45, wherein said chimeric polypeptide is encoded by the polynucleotide of SEQ ID NO: 9 or SEQ ID NO: 10.

47. (New) The chimeric polypeptide of claim 34, wherein a fibrin-binding component is fused to each of the N-terminal and C-terminal ends of said streptokinase component via a peptide bond, and each fibrin-binding component is linked to said streptokinase component through a region that is sufficiently flexible so as to prevent activation of plasminogen by said streptokinase component, and so as to allow plasmin-dependent activation of said streptokinase component.

48. (New) The chimeric polypeptide of claim 47, wherein said streptokinase component is a *Streptococcus equismilis* H46A streptokinase component.

49. (New) The chimeric polypeptide of claim 48, wherein the flexible region linking the N-terminus of said streptokinase component to a fibrin-binding component comprises the N-terminal region of SEQ ID NO: 2; and wherein the flexible region linking the C-terminus of said streptokinase component to a fibrin-binding component is a polypeptide linker comprising Gly-Gly-Gly.

50. (New) The chimeric polypeptide of claim 49, further comprising a transglutaminase crosslinking site.

51. (New) The chimeric polypeptide of claim 50, wherein said streptokinase component comprises amino acids 1-383 of SEQ ID NO: 2.

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52. (New) The chimeric polypeptide of claim 51, wherein said chimeric polypeptide is encoded by the polynucleotide of SEQ ID NO: 12.

53. (New) A pharmaceutical composition comprising the chimeric polypeptide of claim 34, and a stabilizer.

54. (New) The pharmaceutical composition of claim 53, wherein said stabilizer is human serum albumin or mannitol.